

IN THE CLAIMS

Claims 1-20. (Cancelled)

Claim 21. (Currently Amended) A method of allocating processing capacity of system processing units in an extranet gateway, the method comprising the steps of:

establishing a first initial expected available processing bandwidth of a first of the system processing units, the first expected available processing bandwidth representing a first amount of VPN tunnel bandwidth which the first of the system processing units is expected to be able to handle;

establishing a second initial expected available processing bandwidth of a second of the system processing units, the second expected available processing bandwidth representing a second amount of VPN tunnel bandwidth the second of the system processing units is expected to be able to handle; and

assigning a Virtual Private Network (VPN) tunnel to one of the first and second system processing units for processing according to estimated current available bandwidths of the first and second system processing units, the estimated current available bandwidths being estimated by assessing the initial expected available bandwidths for each system processing unit and decrementing decremented the initial expected available bandwidth of each system processing unit by other processing requirements assigned to that respective system processing unit;

wherein the step of assigning the VPN tunnel to one of the first and second system processing units looks to assign the VPN tunnel to the system processing unit with the highest estimated current available bandwidth, the highest current available bandwidth being is based on an absolute bandwidth capacity basis, the absolute bandwidth being calculated by determining which system processing unit has ~~the~~ a largest amount of estimated current available bandwidth.

Claim 22. (Currently Amended) The method of claim 21, wherein the first initial expected available bandwidth is established by determining whether the first system processing unit SPU is an accelerator or a central processing unit (CPU).

Claim 23. (Previously Presented) The method of claim 22, wherein if the first system processing unit is an accelerator, the step of establishing the first initial expected available bandwidth comprises determining a type of accelerator and obtaining expected available bandwidth information for that type of accelerator from an initial expected bandwidth table.

Claim 24. (Previously Presented) The method of claim 22, wherein if the first system processing unit is a CPU, the step of establishing the first initial expected available bandwidth comprises determining a type of CPU and CPU speed, obtaining a first conversion factor for the type of CPU, and multiplying the conversion factor with the CPU speed.

Claim 25. (Previously Presented) The method of claim 24, wherein the first conversion factor is based on an amount of bandwidth passable by that processor type per unit CPU speed.

Claim 26. (Currently Amended) The method of claim 21, wherein the other processing requirements of a system processing unit comprise:

overhead processing requirements assigned to that system processing unit SPU; and
processing requirements associated with other VPN tunnels already assigned to that system processing unit.

Claim 27. (Previously Presented) The method of claim 26, wherein the processing requirements associated with other VPN tunnels assigned to that system processing unit comprise encryption and de-encryption processing requirements for the other VPN tunnels

Claim 28. (Previously Presented) The method of claim 26, wherein the other processing requirements of a system processing unit further comprise processing requirements associated with other VPN tunnels assigned to other system processing units

Claim 29. (Currently Amended) The method of claim 26, wherein the actual load on the other VPN tunnels assigned to the system processing unit is not monitored or used in connection with estimating the current available bandwidth of the system processing unit SPU.

Claim 30. (Currently Amended) A method of allocating processing capacity of system processing units in an extranet gateway, the method comprising the steps of:

establishing a first initial expected available processing bandwidth of a first of the system processing units, the first expected available processing bandwidth representing a first amount of VPN tunnel bandwidth which the first of the system processing units is expected to be able to handle;

establishing a second initial expected available processing bandwidth of a second of the system processing units, the second expected available processing bandwidth representing a second amount of VPN tunnel bandwidth the second of the system processing units is expected to be able to handle; and

assigning a Virtual Private Network (VPN) tunnel to one of the first and second system processing units for processing by assessing current available bandwidths of the first and second system processing units, the current available bandwidths being determined by assessing the initial expected available bandwidth for that system processing unit as decremented by other processing requirements for that system processing unit;

wherein the step of assigning the VPN tunnel to one of the first and second system processing units looks to assign the VPN tunnel to the system processing unit with the highest estimated current available bandwidth, the highest current available bandwidth being ~~is~~ based on a relative bandwidth capacity basis, ~~the relative bandwidth being~~ calculated by determining which system processing unit SPU has ~~the~~ a highest percentage of available capacity.

Claim 31. (Currently Amended) The method of claim 30, wherein the first initial expected available bandwidth is established by determining whether the first system processing unit SPU is an accelerator or a central processing unit (CPU).

Claim 32. (Previously Presented) The method of claim 31, wherein if the first system processing unit is an accelerator, the step of establishing the first initial expected available bandwidth comprises determining a type of accelerator and obtaining expected available bandwidth information for that type of accelerator from an initial expected bandwidth table.

Claim 33. (Previously Presented) The method of claim 31, wherein if the first system processing unit is a CPU, the step of establishing the first initial expected available bandwidth comprises determining a type of CPU and CPU speed, obtaining a first conversion factor for the type of CPU, and multiplying the conversion factor with the CPU speed.

Claim 34. (Previously Presented) The method of claim 33, wherein the first conversion factor is based on an amount of bandwidth passable by that processor type per unit CPU speed.

Claim 35. (Currently Amended) The method of claim 30, wherein the other processing requirements of a system processing unit comprise:

overhead processing requirements assigned to that system processing unit SPU; and
processing requirements associated with other VPN tunnels already assigned to that system processing unit.

Claim 36. (Previously Presented) The method of claim 35, wherein the processing requirements associated with other VPN tunnels assigned to that system processing unit comprise encryption and de-encryption processing requirements for the other VPN tunnels

Claim 37. (Previously Presented) The method of claim 35, wherein the other processing requirements of a system processing unit further comprise processing requirements associated with other VPN tunnels assigned to other system processing units

Claim 38. (Currently Amended) The method of claim 35, wherein the actual load on the other VPN tunnels assigned to the system processing unit is not monitored or used in connection with estimating the current available bandwidth of the system processing unit SPU.

Claims 39-40. (Cancelled)